

Claims:

1. A syringe for dispensing a fluid susceptible to void formation when frozen and thawed before dispensing, comprising:

a barrel comprising a sidewall having an inwardly-facing surface, a portion of said sidewall forming a reservoir to contain the fluid, and said inwardly-facing surface of said sidewall portion forming said reservoir being roughened with a surface roughness effective to significantly reduce void formation between said inwardly-facing surface of said sidewall portion forming said reservoir and the fluid.

2. The syringe of claim 1 wherein said inwardly-facing surface is centered about an axis, and said sidewall includes a plurality of grooves aligned substantially parallel to said axis.

3. The syringe of claim 1 wherein said surface roughness is greater than about 0.1 microns.

4. The syringe of claim 3 wherein said surface roughness is greater than about 2.5 microns.

5. The syringe of claim 4 wherein said surface roughness is between about 2.5 microns and about 5.1 microns.

6. The syringe of claim 1 wherein said sidewall portion has a flexibility, and a level of said surface roughness effective to significantly reduce void formation is dependent upon said flexibility.

7. The syringe of claim 6 wherein said sidewall portion is formed from polypropylene, and said sidewall portion has a thickness ranging from about 0.019" and about 0.025".

8. The syringe of claim 6 wherein said flexibility depends upon a thickness of said sidewall portion and a material forming said sidewall portion.

9. The syringe of claim 1 further comprising:
a pressure sleeve capable of being placed in a surrounding with
said sidewall when the fluid filling said reservoir is dispensed.

10. A method of manufacturing a syringe for dispensing a fluid susceptible to void formation when frozen and thawed before dispensing, comprising:

forming the syringe about a core inside a mold such that a sidewall of the syringe forms about the core with an inwardly-facing surface in contact with the core; and

separating the syringe from the core such that ribs on the core form lengthwise grooves in the inwardly-facing surface, the grooves being effective to significantly reduce void formation between the inwardly-facing surface and the fluid when the fluid is frozen and thawed.

11. The method of claim 10 wherein forming the syringe further comprises:

providing features on the core in contact with the inwardly-facing surface of the syringe; and

transferring features representative of the features on the core to the inwardly-facing surface.

12. The method of claim 11 wherein the features on the core further comprise a texture applied to the core.